EXOR INTERNATIONAL

Tech-note

Baldor NextMove driver for JMobile

This document contains the information needed to connect the panel to control devices using the Baldor NextMove communication protocol over a serial communication link.

EXOR International S.p.A.
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Baldor NextMove Driver

This communication protocol allows the panels to connect to the Baldor motion and servo drive devices using the HCP and HCP2 communication protocols.

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Settings

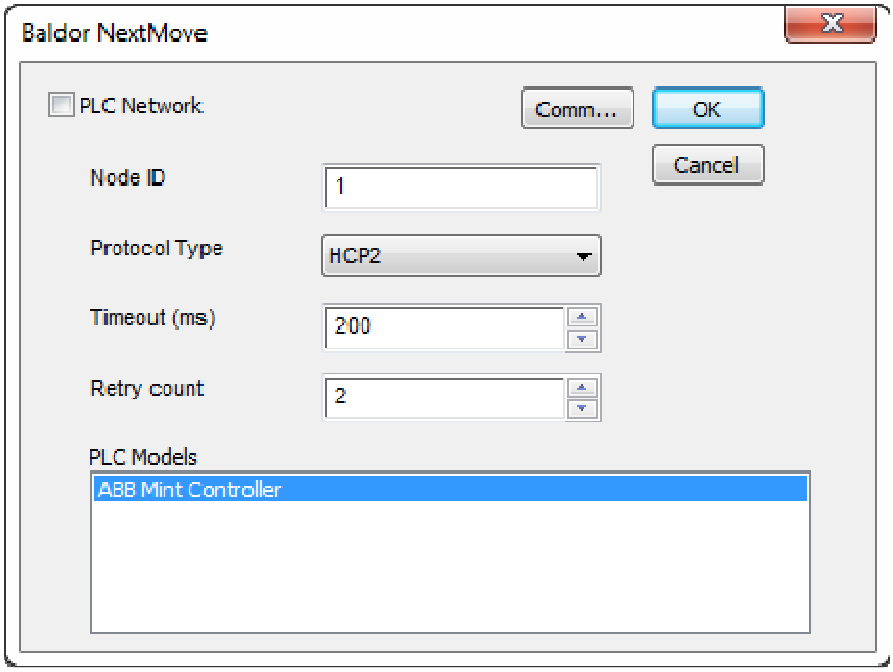

Figure 1

Node ID Node ID assigned to the controller device

Protocol Type Protocol selection; two protocols are available: HCP and HCP2; select the one requested by the specific device

Timeout (ms) Defines the time inserted by the protocol between two retries of the same message in case of missing response from the server device. It is expressed in milliseconds.

Retry count This parameter defines the number of times a certain message will be sent to the controller before reporting the communication error status.
A value of 1 for the parameter “No of repeats” means that the panel will eventually report the communication error status if the response to the first request packet is not correct.

PLC Models Controller model list

PLC Network The protocol allows the connection of multiple controllers to one operator panel. To set-up multiple connections, check “PLC network” checkbox and enter the node ID per each slave you need to access.

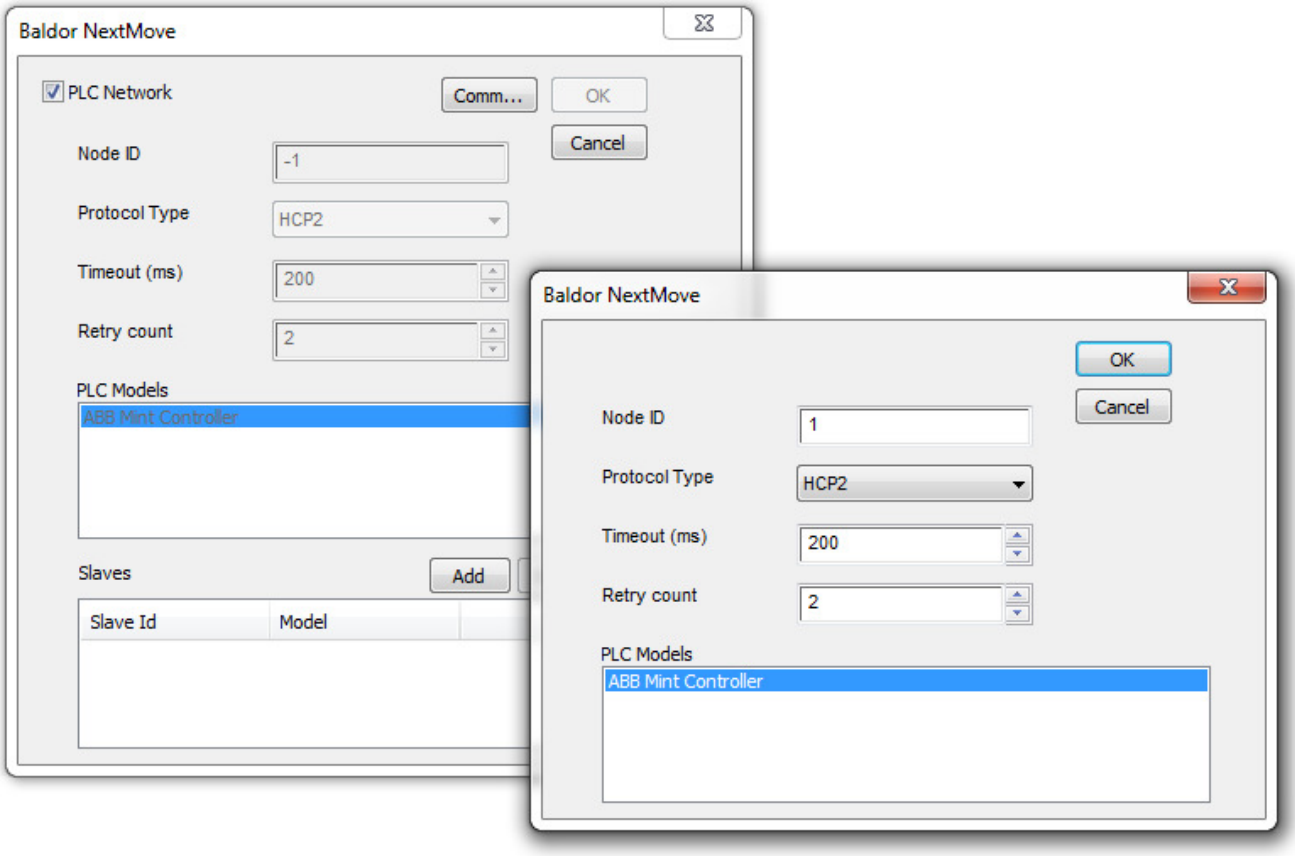

Figure 2

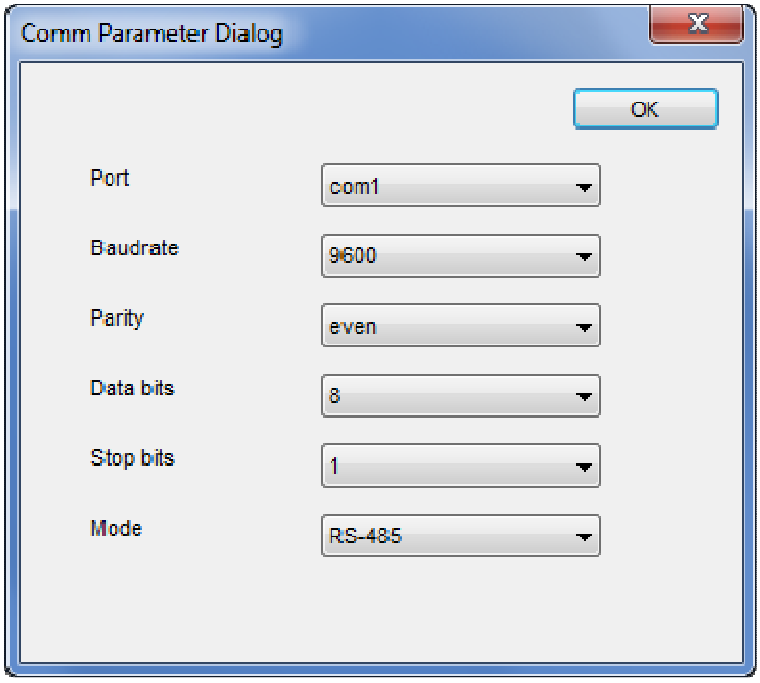

Figure 3

Port	Serial port selection. COM1 is the panel PLC port, COM2 is the PC/Printer port
Baudrate, Parity, Data bits, Stop bits	Communication parameters for the serial line
Mode	Serial port mode; can be selected between: RS-232, RS-485 (2 wires) RS-422 (4 wires)

Data types

The Baldor NextMove driver provides the support for two Memory Types: Comms and CommsInteger.

The two memory types are actually referring to the same physical memory area in the Mint controller. The Comms memory type should only be used with floating point values (and the Mint program on the Baldor controller should use COMMS to access this data).

The CommsInteger memory type accesses the same locations on the Mint controller but allows a variety of integer-based data types to be selected as shown in figure 4.

If the Baldor controller program uses the Mint COMMS keyword for a tag setup to use the Commsinteger memory type then only the bottom 23 bits will be accurate (due to floating point precision of the COMMS keyword).
If the Baldor controller program uses COMMSINTEGER for a tag setup to use the Commsinteger memory type then the value is precise for the full 32 bits.

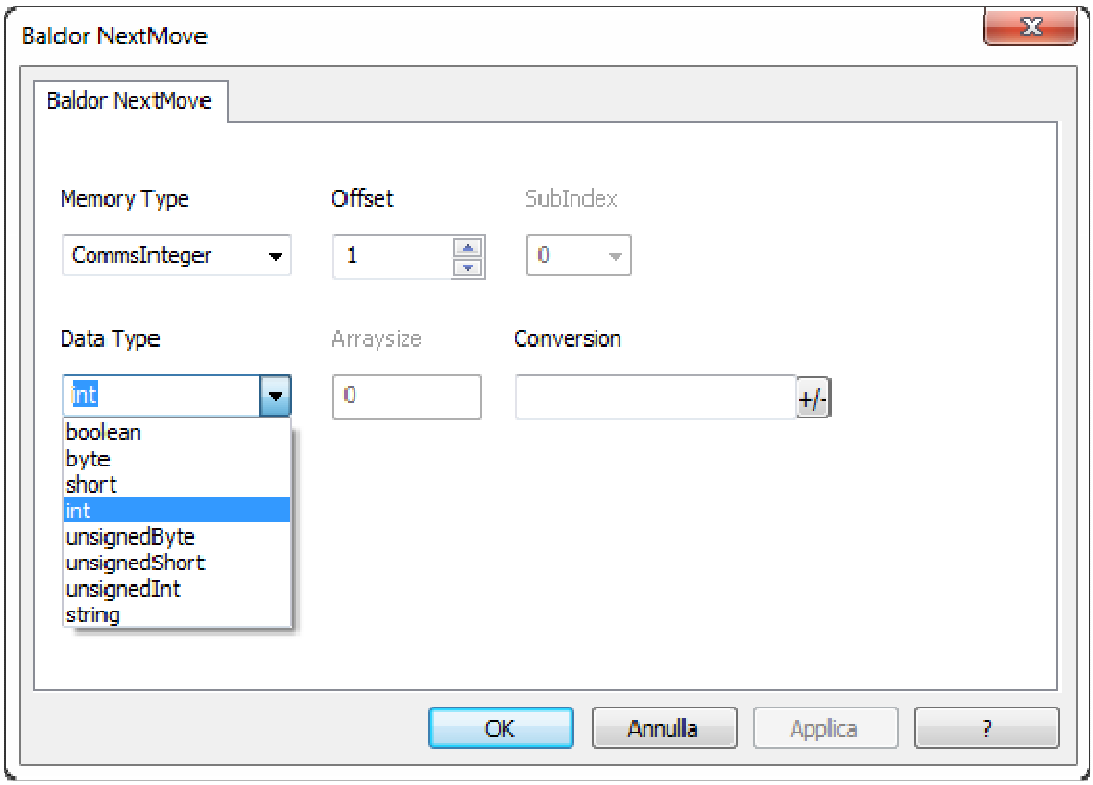

Figure 4

Communication Status

The current communication status can be displayed using the dedicated system variables. Please refer to the User Manual for further information about available system variables and their use.

The codes supported for this communication driver are:

Error	Notes
NAK	Returned in case the controller replies with a not acknowledge
Timeout	Returned when a request is not replied within the specified timeout period; ensure the controller is connected and properly configured to get network access
Line Error	Returned when an error on the communication parameter setup is detected (parity, baud rate, data bits, stop bits); ensure the communication parameter settings of the controller is compatible with panel communication setup
Invalid response	The panel did receive a response from the controller, but its format or its contents are not as expected; ensure the data programmed in the project is consistent with the controller resources
General Error	Error cannot be identified; should never be reported; contact technical support